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Understanding Decentralized Finance (DeFi): Basics and Functionality

By RAKESH SHARMA Updated June 13, 2026

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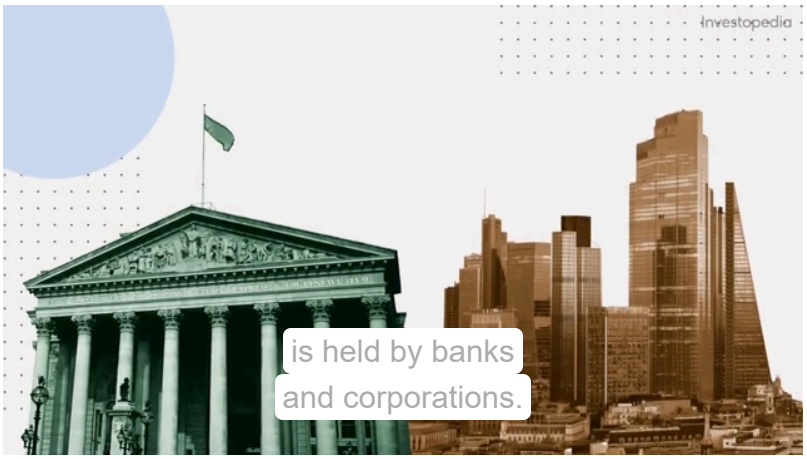
Part of the Series
A Primer on Investing in Transformative Technology



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- Decentralized finance (DeFi) uses blockchain technology to enable peer-to-peer financial transactions without traditional intermediaries like banks.
- DeFi offers global accessibility, lower fees, and transparency but is highly vulnerable to hacks, fraud, and regulatory challenges.
- DeFi is a high-risk, speculative investment option that remains a small part of the global financial system.

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What Is Decentralized Finance (DeFi)?

Decentralized finance (DeFi) is an emerging financial system that uses blockchain technology and cryptocurrencies to enable direct transactions between individuals and businesses. This often happens without the need for traditional intermediaries such as banks.

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services directly. DeFi challenges t
peer-to-peer transactions.

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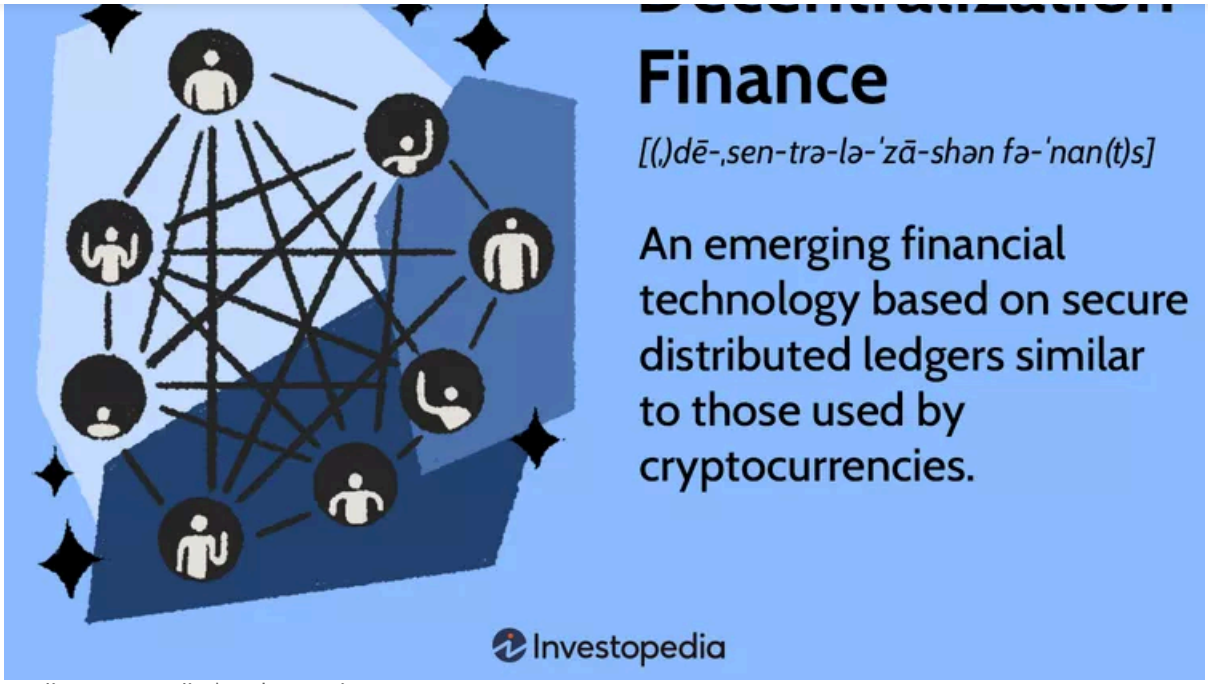
Finance
[(ˌ)dē-ˌsen-trə-lə-ˈzā-shən fə-ˈnan(t)s]
An emerging financial technology based on secure distributed ledgers similar to those used by cryptocurrencies.
Investopedia

Credit: Investopedia / Joules Garcia

How Decentralized Finance (DeFi) Works

DeFi uses security protocols, connectivity, software, and hardware advancements to create peer-to-peer financial networks. This system eliminates intermediaries like banks and other financial service companies.

These companies charge businesses and customers for their services, which are currently necessary to facilitate most financial transactions. DeFi uses blockchain technology to reduce the need for these intermediaries.

How Blockchain Powers D

A blockchain is a distributed and s
transactions are recorded in files
processes. Once verified, a block i
created containing the previous b
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The blocks are "chained" togethe
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Using applications called wallets that can send information to a blockchain, individuals hold private keys to tokens or cryptocurrencies that act like passwords. These keys give them access to virtual tokens that represent value. Ownership of the tokens is transferred by 'sending' an amount to another entity via a wallet, whose wallet, in turn, generates a different private key for them. This secures their ownership of the token, and the blockchain design prevents the transfer from being reversed.

Decentralized Finance Applications

DeFi applications are programs installed on a device like a personal computer, tablet, or smartphone. They are designed to communicate with a blockchain, allowing people to use their money for purchases, loans, gifts, trading, or any other way they want without a third party. Without the applications, users would need to use the command line or terminal in a device's operating system to access decentralized finance transactions.

DeFi applications provide an interface that automates transactions between users by giving them financial options to choose from. For example, if you want to make a loan to someone and charge them interest, you can select the option on the interface and enter terms like interest or collateral. If you need a loan, you can search for providers, which could range from a bank to an individual, and agree on terms.

Because the blockchain is a globa
services to or from anywhere in th

IMPORTANT

Decentralized finance does not
include an individual's name bu
knowledge to do so. This includ

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Goals of DeFi

Peer-to-peer (P2P) financial transactions are one of the core premises behind DeFi, where two parties agree to exchange cryptocurrency for goods or services without a third party involved.

Using DeFi allows for:

- **Accessibility**: Anyone with an internet connection can access a DeFi platform, and transactions occur without geographic restrictions.
- **Low fees and negotiable interest rates**: DeFi enables any two parties to negotiate interest rates directly and lend cryptocurrency or money via DeFi networks.
- **Security and transparency**: Smart contracts published on a blockchain and records of completed transactions are available for anyone to review, but do not reveal your identity. Blockchains are generally immutable, meaning they cannot be altered.
- **Autonomy**: DeFi platforms don't rely on centralized financial institutions, though some services still rely on centralized components. The decentralized nature of DeFi protocols can reduce reliance on traditional financial intermediaries, though users still pay network and platform fees.

FAST FACT

Peer-to-peer lending under DeF
and fees. However, it does mear
the lender can be anywhere anc

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and corporations.

Start Using

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To get started:

1. Research activities in DeFi that interest you.
2. Choose a suitable digital wallet for DeFi applications.
3. Purchase cryptocurrency through a reputable exchange.
4. Identify a DeFi app that offers the transaction choices you want, such as borrowing or yield farming.
5. Integrate your cryptocurrency with the selected app.

Real-World Example of DeFi

DeFi is an all-inclusive term for any application that uses blockchain and cryptocurrency techniques or technology to offer financial services. Some of these applications can provide a variety of financial services ranging from savings accounts to providing liquidity to businesses or investors.

A notable DeFi service provider is Aave, which is a "decentralized non-custodial liquidity market protocol" that allows anyone to participate as a liquidity supplier or borrower. Aave lets you stake any of your crypto assets to earn interest income from users who might borrow your assets. [1]

Popular Uses for DeFi Technology

Decentralized finance was originally conceived of as a way to bring financial services like loans and banking to
since morphed into an industry w
sectors or endeavors. Here are a fe

- **Decentralized exchanges**: The
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apps that let you interact with
- **Liquidity providers**: Liquidity i
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- **Lending/yield farming:** There are hundreds of DeFi apps available that provide lending. Generally, they operate the same way as a liquidity pool. Users lock their funds in a pool and let others borrow them, receiving interest on their loans. This is known as yield farming. Some platforms offer “flash loans,” which don't require collateral but must be borrowed and repaid within the same transaction. These are primarily useful for advanced users.
- **Gambling/prediction markets**: Every day, millions of dollars in cryptocurrency are used in DeFi gambling and prediction apps like Polymarket, ZKasino, Horse Racing, Slot Keno Roulette, Azuro, and JuicyBet. [4] Prediction markets are platforms that let you place bets on the outcome of nearly any event. [5]
- **NFTs**: The market for non-fungible tokens is popular with niche investors and collectors.

However, many users own cryptocurrencies as a type of investment, hoping to profit from future rises in price rather than use it for financial transactions.

Navigating the Hype Around DeFi

Just like other blockchain- and cryptocurrency-related projects, businesses, and activities, decentralized finance is subject to considerable hype and misinformation. Cryptocurrency, blockchain, and all technologies associated with them are also subject to extreme price volatility.

There is a considerable amount of
exchanges, but it isn't nearly as m
people still use traditional financi
DeFi still represent a small portion
interested in DeFi should start by r
cryptocurrency to decide whether

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prices had surged during the COVID-19 pandemic thanks to more investor interest and extra liquidity. By the end of 2022, prices dropped significantly due to market instability, some major company failures, and more regulatory scrutiny. The crypto market lost billions of dollars in value.

The most recent crypto winter began in January 2026. By February 2026, the price of Bitcoin was down 40% from an October 2025 peak of $126,080. Other cryptocurrencies followed similar patterns.[6] Prices rose some over the next few months before dropping even lower to $60,692.40 at the beginning of June 2026.

Concerns About Decentralized Finance

Decentralized finance is constantly evolving. It is unregulated, and its ecosystem is vulnerable to faulty programming, hacks, and scams. For example, one of the main ways hackers and thieves steal cryptocurrency is through weaknesses in DeFi applications.

Laws have not yet caught up with advances in technology. Most current laws were crafted based on the idea of separate financial jurisdictions, each with its own set of laws and rules. DeFi's borderless transactions don't fit into this framework, which can be a challenge when financial crimes occur. For example:

- Who is responsible for investigating a financial crime that occurs across borders, protocols, and DeFi ap[illegible]?
- Who would enforce the regulat[illegible]
- How would they enforce them[illegible]?

DeFi platforms and cryptocurrenc[illegible] trouble due to fraud and other cri[illegible] Sam Bankman-Fried, the founder[illegible] guilty of seven felony charges, inc[illegible] billion from FTX customers.[7] Cry[illegible]'" Zhao pleaded gu[illegible]

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Is Decentralized Finance Worth It?

The decentralized finance industry is still in its infancy and evolving, making it a gamble for most users.

The low amount of actual money invested in cryptocurrency and the effects that hype has on prices should make you consider whether investing in decentralized finance is worth it. If you have money you can afford to lose, the space can be very profitable. However, the losses can also be significant.

If you are looking for ways to fund long-term financial goals, such as saving for retirement or growing your net worth, DeFi and cryptocurrency should generally be considered a high-risk, low-priority investment. They are still too new and volatile to risk your future on.

Can You Make Money With Decentralized Finance?

Yes, there are ways to make money using DeFi, such as yield farming or providing liquidity. However, there are risks involved, so it pays to do your research before locking money into DeFi.

Is Decentralized Finance Safe?

DeFi is still in its infancy, and hacks, fraud, and thefts are common. There are many people using it to make money and transact, but in its current state it is not yet as safe as traditional finan

How Is DeFi Different From

Decentralized finance is a blanket
applications that are being develc
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that can be used in DeFi.

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transactions using blockchain technology.

While promising, DeFi remains in its infancy. It is vulnerable to hackers, fraud, and regulatory challenges. It also accounts for a small portion of global financial transactions. Potential users should approach DeFi cautiously, keeping in mind its risks, and research DeFi transactions and platforms thoroughly before buying cryptocurrencies or sending, receiving, and loaning money with decentralized finance.

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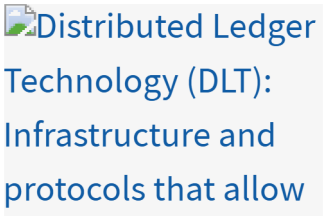

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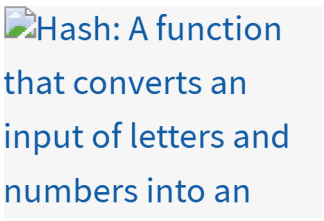

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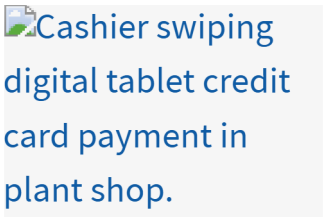

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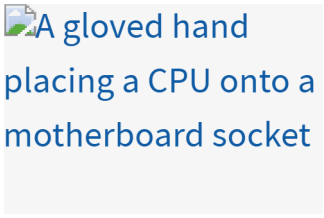

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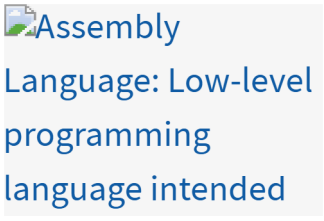

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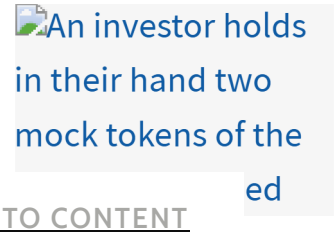

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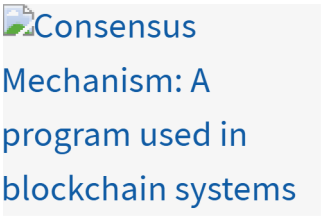

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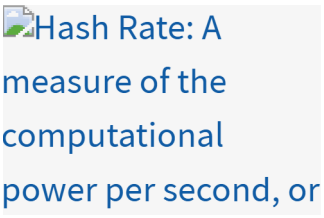

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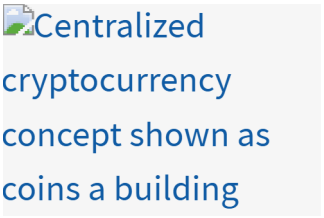

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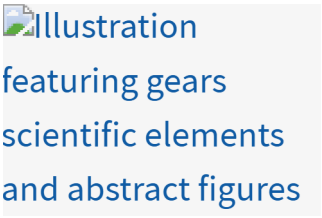

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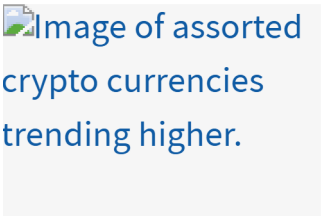

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